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10/038,106

01/02/2002

Neil Rasmussen

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EXAMINER

ESTRADA, ANGEL R

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/038,106

Applicant(s)

RASMUSSEN ET AL.

Examiner

Angel R. Estrada

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 52-56 is/are allowed.
- 6) ☒ Claim(s) 1-3, 13, 18-20, 28, 57-59, 64-66, 74, 76, 77, 79 and 81 is/are rejected.
- 7) ☒ Claim(s) 4-12, 14-17, 21-27, 29-51, 60-63, 67-73, 75, 78 and 80 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/4/02 & 2/13/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Drawings*

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 28, 64, 65, 76 and 79 are rejected under 35 U.S.C. 102(b) as being anticipated by the applicant's admitted prior art (see figure 1).

Regarding claim 1, the applicants' admitted prior art discloses an adaptable power and mounting system (see figure 1) for equipment, the system comprising: a plurality of equipment racks (114), each one of the equipment racks (114) having at least a first power input to receive power to power equipment contained in each of the equipment racks (page 9 lines 19-20); and a first power distribution rack (110a) that provides power to the equipment racks, the first power distribution rack (110a) including a power distribution panel (page 2 lines 4-5) and a plurality of output power cables (page 9 lines 27-30), each having a first end coupled to the power distribution panel and

a second end having a mating connector that mates with the first power input of at least one of the plurality of equipment racks (page 9 lines 19-20).

Regarding claim 2, the applicants' admitted prior art discloses the system (see figure 1), wherein the plurality of equipment racks (114) and the first power distribution rack (110a) are designed to be installed in a facility in a predetermined arrangement (see figure 1), whereby each rack (114) is at a predetermined distance from the power distribution rack (110a), wherein each of the plurality of cables mates with a respective one of the plurality of equipment racks, and each one of the plurality of cables (page 1 lines 16-19) has a length based on the predetermined distance between the power distribution rack (110a) and the respective one of the plurality of equipment racks (114) for the one of the plurality of cables.

Regarding claim 3, the applicants' admitted prior art discloses the system (see figure 1), wherein the first power distribution rack (110a) further includes: a main power input to receive input power having a first voltage value from a first power source (page 9 line 27-29), and a transformer coupled to the main power input and to each of the plurality of output power cables to provide output power having a second voltage (page 9 line 27-20), lower than the first voltage, to the plurality of output power cables.

Regarding claim 28, the applicants' admitted prior art discloses the system (see figure 1), wherein the first power distribution rack (110a) further includes: a main power input to receive input power having a first voltage value from a first power source (page 9 lines 27-29), and a transformer coupled to the main power input and to each of the

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plurality of output power cables to provide output power having a second voltage (page 9 line 27-29), lower than the first voltage, to the plurality of output power cables.

Regarding claim 64, the applicants' admitted prior art discloses a method of installing equipment in a plurality of equipment racks (114) in a facility, the method comprising: providing a first power distribution rack (110a) having a power distribution panel; determining a location for the first power distribution rack (110a) and the plurality of equipment racks (114) in the facility (see figure 1), based on the location of the plurality of equipment racks and the first power distribution rack, determining a necessary length of each one of a first plurality of power cables, such that each one of the first plurality of power cables can be coupled between the first power distribution rack (110a, page 1 lines 16-19) and one of the plurality of equipment racks (114) with a first end of each power cable being coupled to the power distribution panel (page 1 lines 16-19) and a second end being coupled to one of the plurality of equipment racks (114); and connecting the first end of each of the first plurality of power cables to the power distribution panel (114); and installing a connector on the second end of each of the first plurality of cables, the connector being selected to mate with an input connector of each of the plurality of equipment racks(see figure 1).

Regarding claim 65, the applicants' admitted prior art discloses the method, further comprising: after installing the connectors, packaging the first plurality of cables and the power distribution rack for shipment to the facility (well known in the art)

Regarding claim 76, the applicants' admitted prior art discloses the method further comprising: providing a second power distribution rack (110b) having a power

distribution panel; determining a location in the facility of the second power distribution rack (see figure 1); based on the location of the plurality of equipment racks (114) and the second power distribution rack (110b), determining a necessary length of each one of a second plurality of power cables, such that each one of the second plurality of power cables can be coupled between the second power distribution rack (110b) and one of the plurality of equipment racks (114) with a first end of each of the second plurality of power cables being coupled to the power distribution panel (page 1 lines 16-19) in the second power distribution rack (110d) and a second end being coupled to one of the plurality of equipment racks (114); and connecting the first end of each of the second plurality of power cables to the power distribution panel of the second power distribution rack (110b); and installing a connector on the second end of each of the second plurality of cables, the connector being selected to mate with an input connector of each of the plurality of equipment racks (114, see figure 1).

Regarding claim 79, the applicants' admitted prior art discloses the method wherein determining a necessary length of the first plurality of power cables includes using a computer aided design program (well known in the art) to determine location of the plurality of equipment racks (114) and the first power distribution rack (110a) in the facility (see figure 1).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (see figure 1) in view Tarrant (US 4,656,767).

Regarding claim 13, the applicants' admitted prior art discloses the claimed invention except for each of the plurality of power cables includes a label. Tarrant teaches a cable (10) having a label (20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to each of the plurality of power cables of the applicants' admitted prior art with a label as taught by Tarrant to provide the cables with identification means.

4. Claims 18-20, 57-59, 66, 74, 77 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (see figure 1) in view Bauer (US 6,129,316).

Regarding claim 18, the applicants' admitted prior art discloses the claimed invention except for each one of the plurality of equipment racks having a roof section with a cable track mounted on the roof section. Bauer teaches an equipment rack (26) having a roof section (12) with a cable track (40) mounted on the roof section (see figures 5 or 6), wherein the cable track (40) is constructed and arranged to contain a portion of at least one of the plurality of cables and to route cables from a first rack to a second rack (column 4 lines 49-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the applicants' admitted prior art with a rack having a roof section with a cable track as taught by Bauer to improve the routing of the cable along the racks.

Regarding claim 19, Bauer teaches the roof section (12) having an opening (16) to allow a power cable to pass from the cable track (40) to within an equipment rack or from within the equipment rack to the roof of the rack (see figure 5).

Regarding claim 20, Bauer teaches the cable track (40) of a first one of the equipment racks (see figure 1) being constructed and arranged to mate with the cable track of an adjacent second one of the equipment racks to form a continuous cable track (column 4 line 49-53) across the roof sections of the first one of the equipment racks and the second one of the equipment racks (see figure 1).

Regarding claim 57, the applicants' admitted prior art discloses an adaptable power and mounting system (see figure 1) for equipment, the system comprising: a plurality of equipment racks (114), each one of the equipment racks (114) having at least a first power input to receive power to power equipment contained in each of the



equipment racks (page 9 lines 19-30); and a first power distribution rack (110a) that provides power to the equipment racks, the first power distribution rack (110a) including a power distribution panel (page 2 lines 4-5) and a plurality of output power cables (page 9 lines 27-30), each having a first end coupled to the power distribution panel and a second end having a mating connector that mates with the first power input of at least one of the plurality of equipment racks (page 9 lines 19-30); but lacks each one of the plurality of equipment rack having a roof section with a cable track. Bauer teaches an equipment rack (26) having a roof section (12) with a cable track (40) mounted on the roof section (see figures 5 or 6), wherein the cable track (40) is constructed and arranged to contain a portion of at least one of the plurality of cables and to route cables from a first rack to a second rack (column 4 lines 49-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the applicants' admitted prior art with a rack having a roof section with a cable track as taught by Bauer to improve the routing of the cable along the racks.

Regarding claim 58, Bauer teaches the roof section (12) having an opening (16) to allow a power cable to pass from the cable track (40) to within an equipment rack or from within the equipment rack to the roof of the rack (see figure 5).

Regarding claim 59, Bauer teaches the cable track (40) of a first one of the equipment racks (see figure 1) being constructed and arranged to mate with the cable track of an adjacent second one of the equipment racks to form a continuous cable track (column 4 lines 49-53) across the roof sections of the first one of the equipment racks and the second one of the equipment racks (see figure 1).

Regarding claim 66, the applicants' admitted prior art discloses the claimed invention except for each of the plurality of equipment racks having a cable rack mounted thereon and the step of routing each of the plurality of power cables along the cable track. Bauer teaches an equipment rack (26) having a roof section (12) with a cable track (40) mounted on the roof section (see figures 5 or 6), wherein the cable track (40) is constructed and arranged to contain a portion of at least one of the plurality of power cables to route one of the cables from a first position to a second position along the equipment racks (column 4 line 49-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the applicants' admitted prior art with a rack having a roof section with a cable track as taught by Bauer to improve the routing of the cable along the racks.

Regarding claim 74, the applicants' prior art discloses the claimed invention except for the plurality of equipment racks having a roof, which includes a cable track and the roof has a hole for routing cables out of the rack. Bauer teaches an equipment rack (26) having a roof section (12) with a cable track (40) mounted on the roof section (see figures 5 or 6), wherein the cable track (40) is constructed and arranged to contain a portion of at least one of the plurality of cables and to route cables from a first rack to a second rack (column 4 lines 49-53), said roof has a hole (16) for routing cable out of the rack (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the applicants' admitted prior art with a rack having a roof section with a hole and a cable track as taught by Bauer to improve the routing of the cable along the racks.

Regarding claim 77, the applicant's the applicants' prior art discloses the claimed invention except for routing power cables out of a hole in the top of the second power distribution rack. Bauer teaches an equipment rack (26) having a roof section (12) with a cable track (40) mounted on the roof section (see figures 5 or 6), wherein the cable track (40) is constructed and arranged to contain a portion of at least one of the plurality of cables and to route cables from a first rack to a second rack (column 4 lines 49-53), said roof has a hole (16) for routing cable out of the rack (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the applicants' admitted prior art with a rack having a roof section with a hole and a cable track as taught by Bauer to improve the routing of the cable along the racks.

Regarding claim 81, the applicants' admitted prior art discloses the claimed invention except each of the plurality of equipment racks having a data cable track mounted on the roof. Bauer teaches an equipment rack (26) having a roof section (12) with a cable track (40) mounted on the roof section (see figures 5 or 6), wherein the cable track (40) is constructed and arranged to contain a portion of at least one of the plurality of cables to route one of the cables from a first position to a second position along the equipment racks. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the applicants' admitted prior art with a rack having a roof section with a cable track as taught by Bauer to improve the routing of the cable along the racks.

***Allowable Subject Matter***

3. Claims 52-56 are allowed.

The following is an examiner's statement of reasons for allowance: The primary reason for the indication of the allowability of claims 52-56 is:

Regarding claims 52-56, the prior art does not teach or fairly suggest in combination with the other claimed features an uninterruptible power supply (UPS) having at least one battery, the UPS being positioned adjacent the first power distribution rack and having an input coupled to the first power distribution rack to receive input power from the first power distribution rack and having an output to provide one of the input power and backup power derived from the at least one battery to the first power distribution rack wherein the first power distribution rack further includes a bypass switch having a first input to receive input power, a first output to provide the input power to the UPS, a second input coupled to the output of the UPS and a second output, wherein the bypass switch has a first electrical position in which the first input is coupled to the first output and the second input is coupled to the second output and a second electrical position in which the first input is coupled to the second output.

This limitation was found in claims 52-56, and is neither disclosed nor taught by the prior art of record, alone or in combination.

4. Claims 4-12, 14-17, 21-27, 29-51, 60-63, 67-73, 75, 78 and 80 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The primary reasons for the indication of the allowability of claims 4-12, 14-17, 21-27, 29-51, 60-63, 67-73, 75, 78 and 80 are:

Regarding claims 4-6, the prior art does not teach or fairly suggest in combination with the other claimed features a second power distribution rack that provides power to the plurality of equipment racks, the second power distribution rack including a power distribution panel and a plurality of output power cables, each having a first end coupled to the power distribution panel of the second power distribution rack and a second end having a mating connector that mates with the second power input of one of the plurality of equipment racks.

Regarding claims 7-12 and 14-17, the prior art does not teach or fairly suggest in combination with the other claimed features each of the plurality of equipment racks includes at least one receptacle unit having a plurality of power outlets to provide power to the equipment racks.

Regarding claims 21-22, the prior art does not teach or fairly suggest in combination with the other claimed features each of the plurality of equipment racks includes a data cable track mounted on the roof section, and wherein each of the data cable tracks and the power cable tracks has a length that is greater than a width, and each one of the data cable tracks is mounted on the roof of an equipment rack such that

the length of the one of the data cable tracks is substantially parallel to the length of a power cable track mounted on the roof of the equipment rack.

Regarding claims 23-24, the prior art does not teach or fairly suggest in combination with the other claimed features a bridge power cable track configured to mate with a power cable track on a first one of the plurality of equipment racks and to mate with a power cable track on a second one of the plurality of equipment racks to provide a continuous power cable track from the first one of the plurality of equipment racks to the second one of the plurality of equipment racks, and wherein the first one of the plurality of equipment racks and the second one of the equipment racks is separated by an aisle with the bridge power cable track passing over the aisle.

Regarding claims 25-27, the prior art does not teach or fairly suggest in combination with the other claimed features an uninterruptible power supply (UPS) having a plurality of power modules and battery modules, the UPS being positioned adjacent the first power distribution rack and having an input coupled to the first power distribution rack to receive input power from the first power distribution rack and having an output to provide one of the input power and backup power derived from the battery modules to the first power distribution rack.

Regarding claims 29-51, the prior art does not teach or fairly suggest in combination with the other claimed features each of the plurality of equipment racks includes at least one receptacle unit having a plurality of power outlets to provide power to the equipment racks.

Regarding claims 60 and 61, the prior art does not teach or fairly suggest in combination with the other claimed features each of the plurality of equipment racks including a data cable track mounted on the roof section, and wherein each of the data cable tracks and the power cable tracks has a length that is greater than a width, and each one of the data cable tracks is mounted on the roof of an equipment rack such that the length of the one of the data cable tracks is substantially parallel to the length of a power cable track mounted on the roof of the equipment rack.

Regarding claims 62 and 63, the prior art does not teach or fairly suggest in combination with the other claimed features a bridge power cable track configured to mate with a power cable track on a first one of the plurality of equipment racks and to mate with a power cable track on a second one of the plurality of equipment racks to provide a continuous power cable track from the first one of the plurality of equipment racks to the second one of the plurality of equipment racks, and wherein the first one of the plurality of equipment racks and the second one of the equipment racks is separated by an aisle with the bridge power cable track passing over the aisle.

Regarding claims 67-73, the prior art does not teach or fairly suggest in combination with the other claimed features the step of mounting a first power receptacle unit including the first power input cable in at least one of the plurality of equipment racks prior to mating the connector on the second end with a connector of the first power input cable.

Regarding claim 75, the prior art does not teach or fairly suggest in combination with the other claimed features the step of mounting a first power receptacle unit

including the first power input cable in at least one of the plurality of equipment racks prior to mating the connector on the second end with a connector of the power input cable.

Regarding claim 78, the prior art does not teach or fairly suggest in combination with the other claimed features the step of mounting a second power receptacle unit including the second power input cable in at least one of the plurality of equipment racks, prior to mating the connector on the second end of each cable with a connector of a second power input cable.

Regarding claim 80, the prior art does not teach or fairly suggest in combination with the other claimed features the step of providing an uninterruptible power supply contained in a rack, the uninterruptible power supply having batteries to provide backup power, a power input to receive power from the first power distribution rack and a power output to provide one of the power received from the first power distribution rack and the backup power to the power distribution rack.

These limitations were found in claims 4-12, 14-17, 21-27, 29-51, 60-63, 67-73, 75, 78 and 80, and are neither disclosed nor taught by the prior art of record, alone or in combination.

### **Conclusion**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Caveney (US 6,651,362) discloses a cable identification system. McGrath (US 6,541,705) discloses a cable management rack.



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6. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (571) 272-1973. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 Ext: 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Angel R. Estrada

May 11, 2004

*Dean A. Reichard* 5/13/04  
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